

New taxa and new records of butterflies from Vietnam (3)

(Lepidoptera, Rhopalocera)

by

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received 22.XII.2004

Summary: Seven new species and three new subspecies from Satyridae and Nymphalidae families are described and illustrated on the base of the material collected in 2002-2005 in the highland areas of Central Vietnam and in Northern Vietnam (Lao Ca Province): *Cyllogenes milleri* **spec. nov.**, *Cyllogenes janetae orientalis* **subspec. nov.**, *Callarge occidentalis fansipana* **subspec. nov.**, *Lethe berdievi* **spec. nov.**, *Lethe melisana* **spec. nov.** (Satyridae), *Neptis transita* **spec. nov.**, *Phaedyma armariola* **spec. nov.**, *Euthalia eriphylae alboapicala* **subspec. nov.**, *Euthalia hoa* **spec. nov.**, *Euthalia strephonida* **spec. nov.** (Nymphalidae). Further ten taxa belonging to Satyridae, Nymphalidae and Lycaenidae families are new records for Vietnam.

Zusammenfassung: Es werden sieben neue Arten und drei neue Unterarten aus der Familie der Satyridae und Nymphalidae beschrieben und abgebildet, basierend auf den Aufsammlungen der Jahre 2002-2005 in den Hochländern Zentral-Vietnams und in Nord-Vietnam (Lao Cai Provinz): *Cyllogenes milleri* **spec. nov.**, *Cyllogenes janetae orientalis* **subspec. nov.**, *Callarge occidentalis fansipana* **subspec. nov.**, *Lethe berdievi* **spec. nov.**, *Lethe melisana* **spec. nov.** (Satyridae), *Neptis transita* **spec. nov.**, *Phaedyma armariola* **spec. nov.**, *Euthalia eriphylae alboapicala* **subspec. nov.**, *Euthalia hoa* **spec. nov.**, *Euthalia strephonida* **spec. nov.** (Nymphalidae). Weitere 10 Arten aus der Familie der Satyridae, Nymphalidae und Lycaenidae werden erstmals für Vietnam nachgewiesen.

The new taxa described are the result of recent butterfly fauna surveys carried out within the frames of multi disciplinary expeditions organized by Vietnam Russia Tropical Centre, and some non-government conservation organisations (WWF, BirdLife International, Fauna and Flora International). The majority of new taxa and new records was discovered in the Central Vietnam. One new taxon was found during the work in the Museum National d'Histoire Naturelle (Paris)

New collecting localities (for others see DEVYATKIN & MONASTYRSKII, 1999, 2002; MONASTYRSKII & DEVYATKIN, 2000, 2003):

Hon Ba Provincial Nature Reserve, Khanh Hoa Province (12°02'-15°N, 108°57'-109°05'E). There are several main vegetation types depending on elevations. 1. Upper evergreen forest between 1,000 and 1,700m; 2. Evergreen forest at moderate elevations between 500 and 1,000m; Lowland evergreen forest.

Bao Lam Forest (SFE), Lam Dong Province (11°52'30"-11°38'02"N, 107°50'08"-108°42'30"E). There are four main habitat types which were chosen for butterfly studies. These

are 1. Natural tropical evergreen forest, including forest edge and streams; 2. Mixed evergreen and bamboo forest; 3. Scrubland and grassland surrounded by forest habitats; 4. Pine tree cultivated forest.

Van Ban District, Lao Cai Province (22°05'N, 104°05'E). The site is centrally located within the Hoang Lien Mountains. The floral characteristics are typical for the north Vietnamese mountain range. The main vegetation type of the area is described as closed canopy, evergreen, tropical monsoon forest.

Nghia Trung Forest (SFE), Binh Phuoc Province (11°30'–38'N, 107°06'–14'E).

La Nga Forest (SFE), Dong Nai Province (11°11'–23'N, 107°10'–22'E).

There are four main types of habitats. These are 1. Secondary evergreen and semi-deciduous forest including forest edges and forest streams; 2. Mixed evergreen forest with bamboo including the forest surrounding swamp areas with scrub and grassland; 3. Bamboo and 4. Agricultural lands including cashew, coffee, cassava and rice plantations.

Rung Kho Han Nui Chua Nature Reserve, Ninh Thuan Province (11°35'–48'N, 109°03'–14'E). The nature reserve is situated on a wide, mountainous promontory. The original vegetation is a mixture of evergreen forest, semi-deciduous forest and deciduous forest. The southern part at elevations between 150 and 800 m support scrub dominated by thorny trees. This is the most driest site of Vietnam. The area received an average of only 650 mm of rain per year.

Principal collectors

ALM: A. L. MONASTYRSKII

BXP: BUI XUAN PHUONG

BHM: BUI HUU MANH

RB: R. BERDIEV

LC: local collector

Abbreviations

BMNH: The Natural History Museum (London)

MNH: Museum National d'Histoire Naturelle (Paris)

MSU: Department of Entomology, Moscow State University

SFE: State forest enterprise

TME: Toyosato Museum of Entomology, Tsukuba, Japan.

New taxa and new records

Satyridae

Cyllogenes milleri spec. nov.

(Colour plate 6, figs. 1, 2)

Holotype ♀: C. Vietnam, Lam Dong Province, Bao Lam District, 30.IV.2003 (BHM leg.), deposited in BMNH.

Description, upperside ♀ (col. pl. 6, fig. 1): Ground colour of both wings is grey with slight ochreous tinge. Forewing: submarginal and apical areas darker; dark blackish oval patch in space 3 contains a prominent white, with slight violet tinge, round spot shifted out. It recalls an ocellus. Above the ocellus there is a small white spot in space 4; other markings absent. Hindwing: tailed at vein 4; submarginal area slightly darker.

Underside: Ground colour of both wings is ochreous with yellowish tinge and streaks. Forewing with a series of transversal fasciae extending from costa to dorsum; in the cell there is a dark brown thin basal bar; dark brown subbasal fascia extending from costa to vein 1b; pale brown discal fascia extending from costa to base of vein 3; rather prominent, pale brown postdiscal fascia stretching from costa to dorsum; pale brown submarginal fascia thick and extends from apex to dorsum; inner edge of submarginal fascia dusted while the outer edge of this fascia is

straight and distinct. There is a white round spot in space 3. Hindwing has subbasal and postdiscal prominent brown fasciae; inner margin of postdiscal fascia touches and crosses cell. Length of forewing 32 mm. The ♂ is unknown

Diagnosis and discussion: The new species reveals similarity to the *Cyllogenes woolletti* RILEY found only in northern Borneo, which has similar size and wing pattern. However, the new species differs from *C. woolletti* RILEY as follows:

Marginal border on the forewing convex while in *C. woolletti* RILEY it is more or less straight;

Costal margin (from mid costa to apex) straight, while in the species from Borneo it is more round in the apical portion;

Shape of ocellus on the upperside of the forewing oval while in *C. woolletti* RILEY it is elongated towards the marginal border;

Two small white spots in spaces 5 and 6 on the upperside of the forewing are absent, however they are present in *C. woolletti* RILEY;

Postdiscal areas on both sides of both wings unmarked while they are prominently darker in the taxon from Borneo;

Postdiscal band on the underside of the hindwing crosses the cell while in *C. woolletti* RILEY it does not touch the cell.

In the revisional notes on the genus *Cyllogenes* BTL., SMILES (1973) showed the gap in the distribution of the *Cyllogenes* species, considering that formerly the genus was more widespread than today. On one side, this new taxon discovered in C. Vietnam confirms this hypothesis; however, on the other side it demonstrates that this genus conserves wide distribution up to now.

Cyllogenes janetae orientalis subspec. nov.

(Colour plate 6, figs. 3, 4)

Holotype ♀: N. Vietnam, Tuyen Quang Province, Na Hang Nature Reserve, Ban Bung sector, 10.VI.2003 (BXP leg.), deposited in BMNH.

Description, upperside ♀ (col. pl. 6, fig. 3): The new subspecies shows high similarity to the taxon *Cyllogenes janetae fascialata* SMILES, 1973. As in *C. j. fascialata* SMILES, the new subspecies has reduced submarginal yellow band on the hindwing. At the same time it differs from the nominate subspecies and the subspecies *C. j. fascialata* SMILES as follows:

Forewing subapical yellow band narrower (6,5 mm wide at mid point);

The inner margin of subapical band more distinct (in *C. j. fascialata* SMILES and in the nominate subspecies it is more dusty)

Upperside ground colour of both wings dark brown, slightly darker than in other subspecies;

Underside ground colour of both wings pale brown, much paler than in other subspecies.

Length of forewing 43 mm. ♂ is unknown.

Habitats of this new subspecies are situated far from the type locality of the nominate subspecies (Bhutan) and *C. j. fascialata* SMILES (Assam, Naga Hills).

Callarge occidentalis fansipana subsp. nov.

(Colour plate 6, figs. 5, 6)

Holotype ♂: N. Vietnam, Lao Cai Province, Sa Pa, Fan Si Pan, 19.IV.2004 (R. BERDIEV leg.), deposited in BMNH.

Paratypes: 2 ♂♂ same data as in the holotype; 1 ♂ N. Vietnam, Lao Cai Province, Sa Pa, 13.IV.1998 (ALM leg.), in BMNH, TME, MSU.

Description, upperside ♂ (col. pl. 6, fig. 5): Ground colour of both wings uniform black with light yellow markings.

Forewing: Area of the cell uniformly dusted with black scales; curved bar crosses the cell in mid portion; elongated discal markings extend from space 1b to 5. The marking in space 1b is split to the upper and lower ones by a dusted line; marking in space 3 shorter than others; markings at costal area obscure. Submarginal spots extend from space 2 to 6; sometimes they are inwardly arrow-shaped; small streak-like marginal spots dusted with black extend from space 2 to 6. Cilia are greyish white.

Hindwing: Area of the cell uniform yellow; space 1 and half of space 1a coloured by yellow; discal elongated markings extend from space 1b to 7; marking in space 1b split similarly to the forewing. Submarginal spots extend from space 2 to 7; the arrow-shaped spot in space 5 always larger; marginal spots, if occur, are similar to the same on the forewing.

Underside: Ground colour of both wings more or less uniform brown and all markings pale yellow. Wing patterns similar to the upperside, however all markings broader; the cell area on the forewing clear and the dark bar crossing the cell obscure. Marginal and submarginal arrow-shaped spots are distinct. Length of forewing 38-43 mm. ♀ is unknown.

Diagnosis

The new taxon is similar to the nominate subspecies of *Callarge occidentalis* LEECH from W. China (Wa-ssu-kow) and differs from it as follows:

1. All yellow markings on both sides of wings smaller (narrower), darker and more distinct;
2. Dark areas between markings broader;
3. On the underside of both wings submarginal and marginal spots well separated; on the forewing dark bar crossing the cell obscure.
4. The area in the cell on the upperside of the forewing uniformly dusted with black;
5. The dark area between outer borders of discal spots and inner border of submarginal spots looks-like a dark submarginal fascia which is rather straight, while in the nominate subspecies it is inwardly concave.

Lethe berdievi spec. nov.

(Colour plate 6, fig.7-10)

Holotype ♂: N. Vietnam, Lao Cai Province, Van Ban district, Nam Xay commune, 800 m a.s.l., stream Xuong Peng, 26.IV.2004, R. BERDIEV leg., deposited in BMNH.

Paratypes: 2 ♂♂, 2 ♀♀ same locality and date as holotype; 2 ♂♂, locality 11, 12.IV.2005 (ALM leg.), in BMNH, TME, MSU.

Description, upperside ♂ (col. pl. 6, figs. 7, 8): Ground colour of both wings uniform dark brown. Forewing lacks markings, cilia pale brown. Apex and tornus gently rounded. Hindwing marginal edge slightly serrated and tailed at vein 4; submarginal black round spots well developed in spaces 3, 5 and 6; spots in spaces 1b and 4 much smaller and obscure. In space 2 there is a prominent tear-like brand including a black hair tuft and a black area of specialised scales.

Underside. Ground colour of both wings uniform brown with series of reddish brown prominent fasciae and bars. Forewing subbasal fascia slightly curved, crossing the cell and reaching half of space 1b; the discal bar in the cell straight and more or less in parallel with the subbasal fascia; line concave streak at the end of cell; postdiscal fascia straight and thick (about 1,0-1,5 mm) extending from costa to vein 1b at the tornus; in spaces 3-5 there are three more or less equal submarginal black, white-pupilled ocelli surrounded by dull yellow rings; in some cases ocelli in spaces 4 and 6 are absent or (represented by) a loose black area and white pupils, however in other cases all three ocelli are well developed and one additional ocellus appears in space 3. Submarginal and marginal fasciae are prominent. Hindwing: two reddish brown thick fasciae cross the wing from costa to vein 1b near subternal area; inner fascia straight and outer fascia bent at space 4; submarginal ocellus in space 2 absent; ocellus in space 1b bi-pupilled; the streak at the end of cell slightly zigzagged.

Length of forewing: 33-35 mm.

Upperside (col. pl. 6 figs. 10): Ground colour of both wings slightly paler than in the ♂. Forewing pattern similar to the ♂. Hindwing pattern similar to the ♂ but submarginal spots well developed in spaces 1b-6; spots in spaces 1b-5 surrounded by dull yellow rings; inner part of rings obscure; in space 1b two geminated spots elongated; marginal fascia pale brown and distinct; submarginal area slightly darker than ground colour.

Underside: Both wings pattern similar to the ♂, however on the forewing an additional submarginal ocellus in space 2 present; on the hindwing ocellus in space 2 well developed.

Length of forewing: 35,5-38,0 mm.

Diagnosis and discussion: According to the ♂ genitalia structure this new species belongs to the *minerva*-group (*sensu* LESSE, 1957). Wing pattern of both sexes somewhat recalls the species *L. christophi* LEECH, *L. laodamia* LEECH, however the configuration of fasciae and shape of brand on the hindwing is different if it present. The males of such species of *minerva*-group as *L. latiaris* HEWITSON, *L. konkakini* MONSTYRSKII & DEVYATKIN and *L. guansia* SUGIYAMA have a brand at vein 3 on the upperside of the hindwing however it is more elongated in shape and reaches the base of vein 3. The ♂ of *Lethe mataja* FRUHST. distributed in Taiwan has rather similar shape of brand and absence of submarginal ocellus in space 2 on the underside of the hindwing however it has different shape of fasciae and prominent white band on the forewing. Absence of submarginal ocellus in space 2 on the underside of the hindwing in the male in combination with unusual shape of fasciae and shape and location of the brand are most important characters which differ this new species from other species belonging to *minerva*-group.

The species named in honour of Mr. RUSTAM BERDIEV (Moscow State University), who collected this species for the first time.

Lethe melisana spec. nov.

(Colour pl. 7, figs. 1-4)

Holotype ♂: C. Vietnam, Kon Tum Province, Ngoc Linh Nature Reserve, 19.IV.2004, evergreen forest at 700-800 m (BXP leg.), deposited in BMNH.

Paratypes 4 ♂♂, 1 ♀: 1 ♂, the same as the holotype 17.IV.2004 (ALM leg.); 1 ♀ the same locality and date as the holotype (BXP leg.); 1 ♂, the same locality, 16.IV.2004, (BXP leg.); 2 ♂♂ the same locality, 9.IV.1998 and 18.IV.1998 (ALM leg.), ♀ BMNH, 2 ♂♂ TME, 2 ♂♂ MSU.

Description, upperside ♂ (col. pl. 7, fig. 1): Ground colour of both wings uniform deep blackish brown.

Forewing slightly pointed; termen more or less straight, sometimes slightly concave at space 3; discal fascia extends from costa to tornus, obscure; subapical, dot-like black spot in space 5 obscure; dorsum rounded; cilia dark brown.

Hindwing has elongated shape towards termen and tailed at vein 3; an oval greyish band of specialized scales located at base of space 7 and in the cell. There is a series of submarginal black spots extending from space 2 to 6; the spot in space 5 larger; the spots in spaces 4 and 6 sometimes absent; cilia dark brown.

Underside: Ground colour of both wings brownish violet with slight silvery tinge.

Forewing: dorsal area in spaces 1a and 1b paler; basal and subbasal area including the cell much darker than the rest; discal purplish fascia prominent; apex distinctly pale. There are three submarginal black ocelli in spaces 3-5 pupilled with white and ringed with yellow; spot in space 5 slightly shifted out; in the dry season form submarginal spots much paler and indistinct. In the cell there are two straight, parallel dark bars; inner bar obscure; space between bars has same colour as ground colour. Hindwing: two dark purplish fasciae cross the wing from costa to tornus; the area between them is much paler in cell and in spaces 4-8; distal vein of the cell purplish; inner fascia slightly wavy; outer fascia more wavy in particular in spaces 1b-3; a trapezoid purplish streak in space 4 is pointed out; submarginal ocelli black, white pupilled and ringed with yellow; they extend from space 2 to 6; the ocellus in space 1b is double-centred. All uni-pupilled ocelli could be divided in size: the largest in spaces 2 and 6, medium-sized in spaces 3 and 5 and the smallest in space 4. Length of forewing 30-31 mm.

Upperside forewing ♀ (col. pl. II, figs. 3): Basal and subbasal areas are reddish brown; the rest part is blackish; white discal band extends from 1b to costa. There are two subapical whitish spots in spaces 5 and 6 and a whitish subternal patch in space 1b; cilia greyish. Hindwing ground colour uniform reddish brown with more pale costal and tornal areas; submarginal black spots extend from space 2 to 6; the spot in space 5 much larger. It is tailed at vein 3.

Underside forewing: Basal and subbasal areas are brownish and slightly paler than the rest blackish part of the wing; white discal band prominent and extending from tornus (space 1b) to costa. There is a subapical whitish spot in space 6; three submarginal black ocelli in spaces 3-5 pupilled with white and ringed with yellow. In the cell there are two straight and parallel dark bars; space between bars has same colour as ground colour. Hindwing ground colour pale brown with a slight violet tinge; two dark purplish fasciae cross the wing from costa to tornus; the series of submarginal ocelli similar to the same in the ♂. Length of forewing 29 mm.

genitalia (Figs. 1A): The genitalia structure reveals similarity to other species belonging to the *minerva*-group, for example, *L. latiaris* HEWITSON, *L. konkakini* MONASTYRSKII & DEVYATKIN and *L. guansia* SUGIYAMA. At the same time some characters are similar to the species, belonging to the *satyrina*-group. Saccus and uncus are quite long and the latter thickened in the median part. Clasp long and slightly curved laterally and dorsally; apex strongly pointed and the spine of the apex curved laterally out; socii straight and weakly serrated. Aedeagus dorsally slightly curved, but less than in *L. insana* KOLLAR and laterally more thin than in the latter species (Fig. 1A)

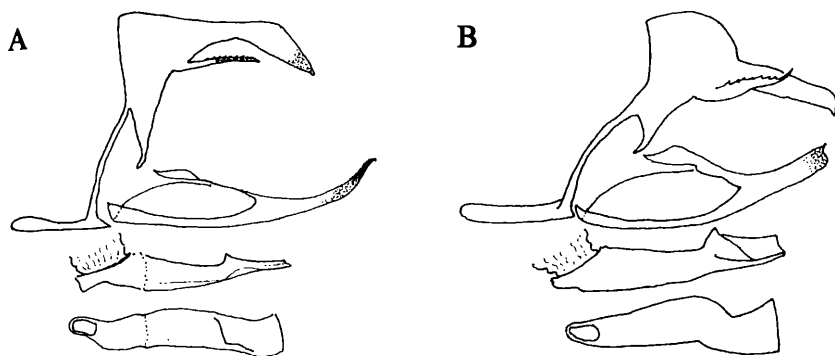


Fig. 1

A: ♂ genitalia of *Lethe melisana* spec. nov. (vinculum and clasp in lateral view; aedeagus in lateral and dorsal view); B: ♂ genitalia of *Lethe insana* KOLLAR (vinculum and clasp in lateral view; aedeagus in lateral and dorsal view)

Diagnosis and discussion: This new taxon combines characters some of which are typical to the species of the *satyrina*-group while others reveal similarity to the species of the *minerva*-group. In the ♂ the wing pattern on both sides is similar to some species of the *satyrina*-group (*insana* KOLL., *dinarbas* HEWITSON, *baucis* LEECH). However, the upperside of the ♀ reveals high external similarity to *L. konkakini* MONASTYRSKII & DEVYATKIN belonging to the *minerva*-group, while the underside is similar to *L. insana* KOLL. The ♂ bears a secondary sexual character: a brand of specialized scales on the hindwing that is unknown in the species of the *satyrina*-group. The ♂ genitalia structure is also most close to some species of the *minerva*-group (see above). Summarizing the characters considered above, the new species should be temporarily placed into the *minerva*-group though it is also possible to accept its intermediate position.

Neope yama (MOORE, [1858])

5 ♂♂, 3 ♀♀, N. Vietnam, Lao Cai Province, Sa Pa, Fan Si Pan, 20.IV.2004, 1900m, R. BERDIEV leg.

First record from Vietnam. According to the classification suggested by H. SUGIYAMA (1994) the taxon found in N. Vietnam belongs to the species *N. yama* (MOORE) demonstrating similarity to

the subspecies *N. yama kinpingensis* LEE, 1962 described from Yunnan (China).

Nymphalidae

Pantoporia bieti (OBERTHÜR, 1894)

3 ♂♂, N. Vietnam, Lao Cai Province, Van Ban District, Nam Xay commune, stream Xuong Peng, 800 m, 24.IV.2004, R. BERDIEV leg.

First record from Vietnam. The new location is rather far from the type localities of the nominate subspecies (Sichuan) *P. b. paona* TYTLER (Naga Hills) and *P. b. lixingguoi* HUANG, recently described from Yunnan (HUANG, 2002).

Neptis transita spec. nov.

(Colour plate 7, figs 5, 6)

Holotype ♂: C. Vietnam, Lam Dong Province, Bi Doup Nui Ba Nature Reserve, 6.IV.2002; 1500 m a.s.l., primary evergreen forest (ALM leg.), deposited in BMNH.

Paratype ♂, the same location as holotype, 5.IV.2002 (ALM leg.), in MNHN

Description upperside ♂ (col. pl. 7, fig. 5): Forewing with vein 10 arising from the cell (as in *Lasippa* MOORE and *Neptis* FABRICIUS); hindwing with vein 8 ending on costa before apex. Ground colour of both wings blackish brown with orange markings. The shape of the forewing is slightly pointed at apex; cell streak and streak beyond cell fused; discocellular bar traced by blackish scales but sometimes invisible; streak beyond cell distally dulled with irregular edge. Upper postdiscal band consists of markings merged extending from pre-costal space 8 to the upper portion of space 4. Lower postdiscal band extends from space 1a to 3; all markings fused. Dull yellowish submarginal fascia obscure; wavy marginal edge bears blackish cilia weakly chequered with white. Hindwing: the pattern is typical to many representatives of this genus; discal band rather wide; postdiscal band narrower and extends from space 1a to 6; marginal border wavy and black cilia weakly chequered.

Underside. Ground colour of both wings uniform dark brown with pale orange and creamy markings. Forewing: the pattern is similar to the upperside, however discocellular bar dividing cell streak and streak beyond cell sometimes rather well visible. Cell streak, streak beyond cell and markings of lower postdiscal band in spaces 1b-3 are more orange than other markings on the underside. Whitish submarginal fascia developed. Hindwing: the pattern is similar to the upperside; whitish basal streak developed and extends from base to 2/3 of space 8; discal and postdiscal bands creamy; reddish discal fascia obscure and passes in the middle between both bands; submarginal whitish fascia well developed.

Length of forewing 26,5-28,0 mm. ♀ unknown.

♂ genitalia (fig. 2 A-D)

Outwardly (fig. 2 A, D) the left clasp in lateral view has undivided structure characteristic of the species belonging to the genera *Lasippa* MOORE and *Pantoporia* HBN. Inwardly (fig. 2 B, C - lateral view) the ampulla bearing a hook-like process and harpe of the right clasp are differentiated

but not similar to other *Neptis* F. These structures including the process are fused with a body of clasp. Such structure of clasp is very unusual for Neptini and on one side it reveals similarity to the genus *Lasippa* MOORE and on the other side to the genus *Neptis* F. According to revision of Eurasian and Australian Neptini (ELIOT, 1969) such structure of clasp recalls somewhat of *Neptis noyala* OBERTHÜR (fig. 3) the harpe of which is well developed and reaches upper the edge of ampulla.

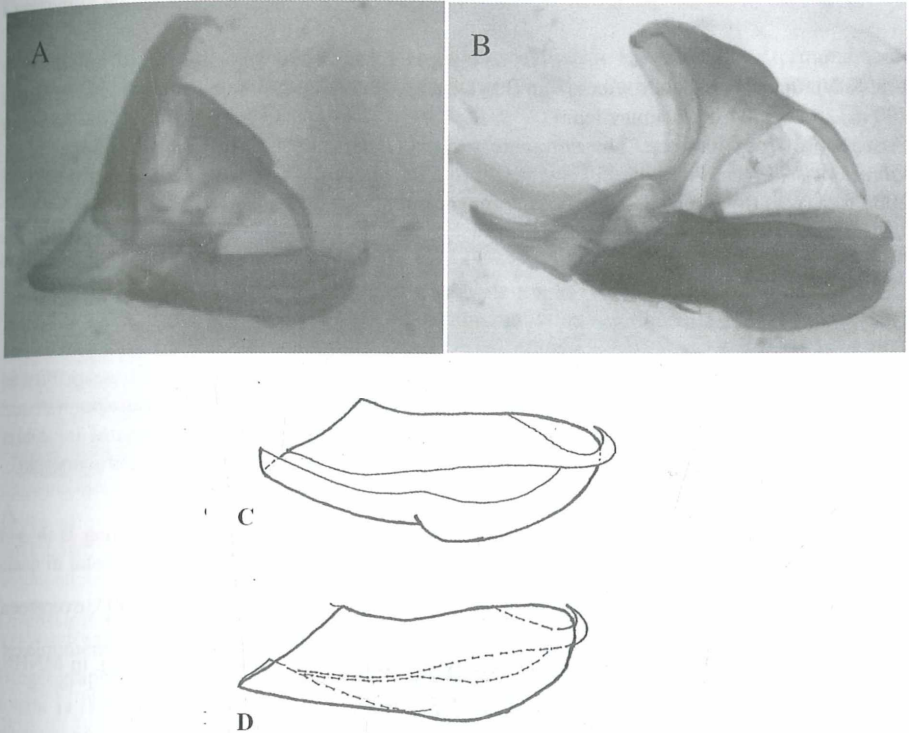


Fig. 2: ♂ genitalia of *Neptis transita* spec. nov.: A, D – left clasp in lateral view; B, C – right clasp in lateral view;



Fig. 3: ♂ genitalia of *Neptis noyala ikedai* SHIRÔZU (after ELIOT, 1969)

Diagnosis and discussion: Both specimens examined show similarity to other species of yellow *Neptis* F. The characters of the new species mentioned above may be seen separately in many other species, however in such combination they have been so far unknown. Some characters of the new species also show a distant similarity to *Lasippa viraja* MOORE (shape of wings and colour of markings on the underside) however it lacks double submarginal fasciae and the discal fascia on the underside of hindwing approaches to the discal band.

Neptis cydippe LEECH, 1890

1 ♂, N. Vietnam, Lao Cai Province, Van Ban District, Nam Xay commune, stream Xuong Peng, 800 m, 25.IV.2004, R. BERDIEV leg.

First record from Vietnam. The nominate subspecies is known from C. & W. China; *N. c. kibrariensis* TYTLER distributed in Naga Hills and its adjacent areas, and *N. c. yongfui* HUANG, 2002 was recently described from N.W. Yunnan.

Neptis armandia pila TYTLER, 1940

1 ♂, C. Vietnam, Kon Tum Province, Ngoc Linh Nature Reserve, 1700 m, 10.IV.2004, ALM leg. This subspecies was recently recorded from N. Laos (Xam Neua) (Osada *et al.*, 1999). It differs from the recently described ssp. *morrisi* MONASTYRSKII & DEVYATKIN (2003) the type locality of which is in the southern part of Central Vietnam. Thus in Central Highland of Vietnam there are two distinctive subspecies *N. a. morrisi* MONASTYRSKII & DEVYATKIN, distributed in the Dalat plateau and the subspecies *N. a pila* TYTLER in the rest northern part of the Annam Mountains.

Phaedyma armariola spec. nov.

(colour plate 7, figs. 7, 8)

Holotype ♂: C. Vietnam, Khanh Hoa Province, Hon Ba Nature Reserve, 18.IV.2003, evergreen forest, near stream at 1200 m a.s.l. (ALM leg.), deposited in BMNH.

Paratypes 2 ♂♂, the same locality as the holotype, 11. and 18.IV.2003 (ALM leg.), in MNHN and MSU.

Description uppersid ♂ (col.pl.7, fig. 5): Shape of wings and size similar to *Phaedyma aspasia* LEECH. Ground colour of both wings black.

Forewing: Pattern very similar to *Ph. aspasia* LEECH: forewing cell streak, streak beyond cell and lower postdiscal band continuous and shaped like a hockey-stick (EVANS, 1932); however all markings bright orange (not yellow or whitish) and much broader. Subcostal whitish spots unclear but in some specimens they are quite well visible; submarginal fascia obscure. Lower postdiscal spots in spaces 1a and 1b are fused and their inner margin reaches subbasal area. Marginal edge is slightly wavy; cilia dark grey. Hindwing pattern is also similar to *Ph. aspasia* LEECH, however all markings in discal and postdiscal bands orange; speculum whitish but not so prominent as in *Ph. aspasia* LEECH (in *Ph. aspasia* LEECH speculum extends to space 5 and there are no markings in space 6 while in the new species discal band reaches space 7).

Underside: Ground colour of both wings brownish chocolate, much darker than in the known

taxa of *Ph. aspasia* LEECH. Forewing: pattern similar to the upperside; hockey-stick has uniform pale orange colour; two slightly bluish subcostal spots located at base of space 6 and in space 10. Upper discal band extends from costa (spaces 9 and 8) to space 5; the largest spot in space 6 has pale orange colour. Hindwing bears whitish violet discal band that is much narrower than in the known taxa of *Ph. aspasia* LEECH; bluish discal fascia and violet postdiscal band more distinct than in *Ph. aspasia* LEECH; pre-costal vein upright and straight. Cilia dark grey (in *Ph. aspasia* LEECH cilia whitish).

♂ genitalia (fig. 4 A, B): Generally similar to *Ph. aspasia* LEECH. However, large terminal hook thicker at the base. On the dorsal surface of clasp there is well developed cone-shaped protuberance that is absent in *Ph. aspasia* LEECH.



Fig. 4: ♂ genitalia of *Phaedyma armariola* spec. nov. A – genitalia in lateral view; B – right clasp in lateral view.

Discussion: Considering differences between the new taxon and *Ph. aspasia* LEECH (colour and development of markings; genitalia structure), the former one should be treated as a new species. Biogeographically, it should be treated as a new species as well. For instance, though *Ph. aspasia* LEECH is distributed rather widely (from Nepal to Central China) this species has not been discovered in the Indochinese Peninsular, including Thailand and Burma, so far. This new species was found in an isolated area of C. Vietnam and very far from the natural habitats of *Ph. aspasia* LEECH. Nevertheless, the new species shows rather high morphological similarity to *Ph. aspasia* LEECH that somewhat confirms their phylogenetic affinity in the past.

Euthalia eriphylae alboapicala subspec. nov.

(Colour plate 7, figs. 9, 10; colour plate 8, figs. 1, 2)

Holotype ♀: S. Vietnam, Binh Phuoc Province, Bu Dang District, Nghia Trung forest, 27.XI.2003, lowland forest (ALM leg.), deposited in BMNH.

Paratypes: 1 ♂, S. Vietnam, Dong Nai province, Dinh Quan District, La Nga forest, 18.V.2003, lowland forest (ALM leg.), in BMNH; 1 ♀, south of C. Vietnam, Lam Dong province, Col de Blao, Route QL20: km 170, 6.II.1975 (R. METAYE leg.), in MNHN.

Description upperside ♂ (col. pl. 7, fig. 9): The sole specimen is rather damaged. Ground colour of both wings uniform brownish black. Forewing: costal spots much paler; two oval spots at base of space 1b. Hindwing has a black discal fascia.

Underside: Ground colour of both wings uniform dark brown, darker than in other known subspecies; discal and postdiscal fasciae invisible; a dark submarginal spot in space 1b. Hindwing has a series of submarginal blackish dot-like spots in spaces from 2 to 5.

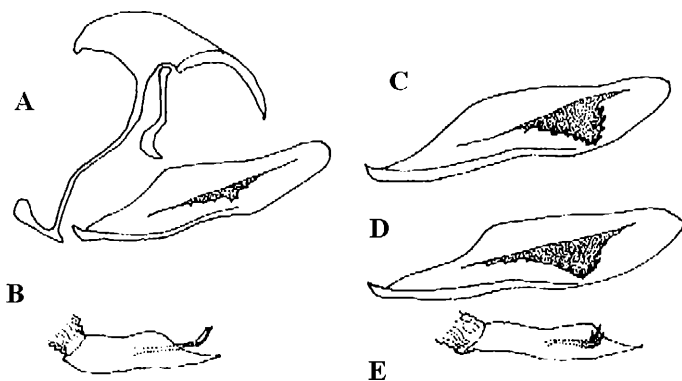


Fig. 5: ♂ genitalia of *Euthalia eriphylae* DE NICEVILLE:

A, B: *E. e. alboapicala* **subspec. nov.**, vinculum and right clasp in lateral view with aedeagus in lateral view.

C: *E. e. lioneli* FRUHSTORFER (N. Vietnam, Cuc Phuong), right clasp.

D, E: *E. e. lioneli* FRUHSTORFER (N. Vietnam, Ba Be), right clasp and aedeagus in lateral view.

Upperside ♀ (col. pl. 8, fig. 1): Forewing rather pointed. Ground colour of both wings more or less uniform dark brown. The forewing has a whitish apical area in spaces 6-8; there is a white round spot at base of space 3. Postdiscal area slightly paler and bordered by inner and outer fasciae; inner fascia obscure but darker than the ground colour and the outer fascia dotted by black markings in spaces from 2 to 6. Two spots in the cell are large (larger than in other subspecies) and distinct, with a dark area between them. In contrast to other subspecies, the female of the new subspecies has prominent round spots at the base in spaces 1b and 2. Hindwing: has two prominent submarginal and discal fasciae, running from the tornal area in space 1a to costa.

Underside: Forewing ground colour brown; white apical area broader and richer than in the upperside; discal dark brown fascia thick and curved in space 3; submarginal fascia similar to the upperside but more distinct. Near the base of space 3 there is round white spot and a dot-like white spot in space 2. Hindwing ground colour bluish green (pale turquoise) with shiny tinge; marginal area brownish; discal fascia brown; submarginal fascia dotted by black markings.

♂ genitalia (fig. 5: A, B): In the new subspecies the structure of the genitalia is similar to other subspecies in particular *E. e. lioneli* FRUHST. from N. Vietnam, however ampulla is more reduced

and lacks a hook-like spine which is present in the *E. e. lioneli* FRUHST. In addition, cornutus in the aedeagus of the new subspecies is much smaller than in *E. e. lioneli* FRUHST. (Figs.5: C-E).

genitalia (fig. 6: A): Generally similar to *E. e. lioneli* FRUHST. (fig.6: B) but lamella antevaginalis less sclerotised.

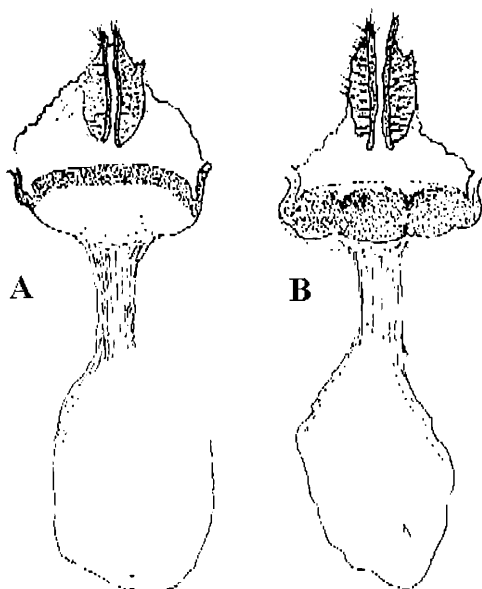


Fig. 6: ♀ genitalia of *Euthalia eriphylae* DE NICEVILLE

A : *E. e. alboapicala* **subspec. nov.** (S. Vietnam); B *E. e. lioneli* FRUHSTORFER (C. Vietnam)

Diagnosis and discussion: A broad white apical area and only one prominent white round spot in space 3 on the forewing are the main wing pattern characteristics of this new subspecies. In addition, the clasp of the ♂ genitalia has reduced ampulla and a large cornutus in the aedeagus. The ♀♀ of this variable species show rather high seasonal variation. In particular, the ♀♀ of dry season forms belonging to *E. e. lioneli* FRUHST. have reduced postdiscal spots on the forewing while in the specimens of wet season forms these markings are much larger. The new subspecies is known by two ♀♀ collected at the end of wet season (November) and in dry season (February). Both of them are similar, but the former specimen has markings slightly brighter and more distinct but it lacks the series of postdiscal spots.

Euthalia hoa **spec. nov.**

(Colour plate 8, figs. 3, 4)

Holotype ♂: C. Vietnam, Khanh Hoa province, Hon Ba Nature Reserve, evergreen forest, 1200 m a.s.l., 17.IV.2003 (ALM leg.), deposited in BMNH.

Paratype 3 ♂♂: 1 ♂ the same label as holotype, 21.IV.2003, 2 ♂♂ the same location as holotype, forest edge at 1500 m, 25., 31.V.2005 (ALM leg.) in MNHN, MSU.

Description upperside ♂ (col. plate 8, figs. 3): Upper surface of the antennae is black; length 20.0 mm. Apex of the forewing is rather pointed. Ground colour of both wings uniform dark green with shiny tinge; there are no bluish tinge. Forewing with a complete wide discal band extending from space 1a to costa; all links of the discal band have uniform yellow creamy colour, clearly separated by blackish veins. Inner and outer margins of the band are irregular; inner margin is distinct while the outer side of markings in spaces 1a-2 and 5-6 has fine dusty border. The marking in space 4 is shifted out and the parallelogram-like marking in space 2 is also slightly shifted out. Black submarginal fascia ends in spaces 6 and 8 with creamy spots. The colour of the submarginal area is similar to the ground colour; marginal area is blackish. Termen is slightly and fluently serrated and the black cilia chequered with white.

Hindwing: The discal band has uniform yellow creamy colour slightly paler than in forewing; it extends from the costa to space 1b gradually narrowing. Inner and outer margins are distinct; inner margin is curved out; outer border of markings more or less straight except those in spaces 5 and 6 which have slightly concave border. The marking in space 7 is whitish. Extending from space 1b to space 7, black and crescent submarginal spots are distinct and well separated with the convex outer border. Marginal area is black. Termen is well serrated with blackish cilia at the tip of dent chequered with white.

Underside: Ground colour of both wings pale green with slight yellowish tinge in marginal and submarginal areas (tornal area); basal and subbasal areas have a tender turquoise shiny tinge, in particular on the hindwing.

Forewing: All markings of the discal band are white with very slight creamy tinge. The inner edge is bordered with black except the spot in space 1a. Basal and subbasal areas in space 1b have a slight violet tinge and dusted with black scales. The outer margin of the discal band lacks black border except spots in spaces 3 and 4. Black submarginal fascia is very wide in spaces 1b and 2 and it is thin in spaces 3 to 5. Small spots in spaces 6 and 8 are white. Submarginal whitish spots are well developed in spaces 1b and 2 and rather obscure in spaces 3-6. Marginal fascia is absent.

Hindwing. Both edges of the discal band are convex at the marginal area. All markings of the discal band are white with very slight creamy tinge; the inner border is black which is more prominent in spaces 4 to 6; outer edge of every spot is slightly concave. Submarginal blackish fascia extends from space 1b to 7; submarginal area is prominent and whitish; marginal area has slight brownish tinge. Length of forewing 44-45 mm; ♀ unknown.

♂ genitalia (Fig. 7 A, B): Uncus is long and gently rounded; it is much longer than in other taxa, belonging to the allied *thibetana*- and *patala*-groups (*sensu* MORISHITA, 1992; 1989). The apex of the clasp is twisted; from dorsal view it is rounded and serrated.

Diagnosis and discussion: Following to the guide on Euthaliini by MORISHITA (1992) this new species reveals some similarity to the *E. thibetana*-complex, comprising *E. thibetana* POULADE, *E. formosana* FRUHST., *E. alpherakyi* OBERTHÜR and *E. undosa* FRUHST. characterized as follows:

the upper surface of the antennae black;

hindwing discal band extends from space 7 to 1b

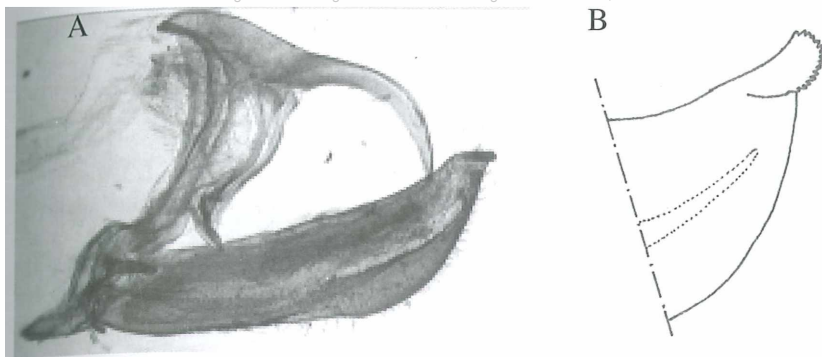


Fig. 7 A, B: *E. hoa* spec. nov., holotype ♂ (in BMNH), genitalia in lateral view with the apex of the clasp in dorsal view.

- the tegumen over 2,5 times as tall as vinculum
- saccus short
- clasp long and slender

Moreover, all species belonging to this complex have a brownish or brown-greenish (*E. tibetana* POUJADE) ground colour on the upperside of the forewing; apex of the clasp is not twisted or slightly twisted (*E. undosa* FRUHST.); uncus is more or less as long as tegumen or slightly shorter. They also have rather narrow markings on the discal band of the forewing. Considering these characteristics the new species has green ground colour, twisted apex of the clasp and long uncus (longer than tegumen); all markings of the discal band are much wider. In addition, the new species has distinctive series of black crescent submarginal spots on the upperside of the hindwing and well visible curvature of the discal band on the hindwing towards marginal edge. Similar characters can be seen separately in some species belonging to other groups. For example, *E. duda* STGR. and *E. dura* MOORE have similar wide discal band, however both species have different shape of wings and the pattern of genitalia structure. *E. yasuyukii* HUANG has a twisted apex of the clasp; however this species has rather short uncus and brown ground colour. *E. undosa* FRUHST. and *E. undosa rickettsi* HALL have also slightly twisted apex of the clasp but different shape of juxta, brown ground colour and narrower discal markings on the forewing. Thus, there are no any other taxa having similar combination of characters as in the new species.

This incredibly interesting species has been discovered very far from the centre of taxonomical diversity of Sino-Himalayan Euthaliini located in China and Tibet. This and the next species are maybe one of the relict evidence of faunistic links between former biotas of Central Indochina and Central and Southern China. High distinctiveness of these new taxa is probably the result of a long period of isolation caused by geological and climatic changes occurring in Pleistocene.

This species is dedicated to Ms. DINH HOA (Galaxy Co., Ltd.) who kindly has supported my new book of the series „Butterflies of Vietnam“.

Euthalia strephonida spec. nov.

(Colour plate 8, figs 5, 6)

Holotype ♂: C. Vietnam, Khanh Hoa Province, Hon Ba Nature Reserve, 18.IV.2002, 1,200m a.s.l., primary evergreen forest, ALM leg, deposited in MNHN.

Description upperside ♂ (col. pl. IV, figs.1, 2): Ground colour of both wings dark green with faint shining brownish tinge. Forewing wide discal area only slightly paler; the outer border of discal area slightly dusted with blackish scales; the inner border of the discal area is more or less straight and distinctly marked with black; the white round transparent spot at base of space 3 is very distinct and has a silvery tinge; the inner margin of this spot is bordered with black; space in the cell between two black-bordered kidney-like dark greenish spots is not paler than other areas of cell and wings. Dorsum is slightly rounded.

Hindwing wide discal band extends from space 2 to 8; it has dark yellow colour in spaces 5-8; the outer apical area is dark green with slight bluish tinge

Underside: Ground colour of both wings dark yellow with greenish tinge.

Forewing: Cell area is bright dark yellow; beyond the cell an inner margin of the discal area is bordered by distinct black markings from space 3 to 6 which are arranged in a line; cream-whitish round sport at the base of space 3 distinct. Hindwing: discal band dark yellow; outer and inner areas surrounding the discal band greenish and slightly dusted with black scales.

Hindwing is slightly elongated at tornus. Length of forewing 41.5 mm.

♀ unknown.

♂ genitalia (Fig. 8A): The clasp is more reinforced than in *E. strephon* GROSE-SMITH; apex of the clasp rounded without serration; in lateral view ventral margin of the clasp forms nearly right angle (in *E. strephon* GROSE-SMITH ventral margin of clasp rounded) (Fig.8 B-D).

Diagnosis and discussion: Except the nominate subspecies of *E. strephon* GROSE-SMITH a few other subspecies were described recently. All of them are listed below:

Euthalia strephon strephon GROSE-SMITH, 1893, TL: Omeishan.

E. s. brevifasciata CHOU & GU, 1994, TL: Hainan.

E. s. haradai YOKOCHI, 1996, TL: N. Thailand.

E. s. zhaxidunzhiu HUANG, 1998, TL: S.E. Tibet.

Comparing the new species with all taxa belonging to *E. strephon* GROSE-SMITH, we followed some indirect information collected from the descriptions of other species. For example, CHOU & GU (1994) showed only one distinctive character meaning that all other characters are similar to the nominate subspecies; according to HUANG (1998) there is no differences in the ♂ genitalia structures between the nominate subspecies, *E. s. brevifasciata* CHOU & GU and *E. s. zhaxidunzhiu* HUANG. YOKOCHI (1996) did not mention the genitalia structure in *E. strephon haradai* YOKOCHI, probably assuming that they were similar to other subspecies. Considering this, the new species might be easily distinguished from the species *E. strephon* GROSE-SMITH by the characteristics as follows:

1. Upperside of both wings has dark green ground colour with shining brownish tinge. On both sides of forewing the black inner border of the discal area is straight in particularly in spaces from 3 to 6 and more prominent. In *E. strephon strephon* GROSE-SMITH and its other subspecies these markings form a curved line (Fig. 9).

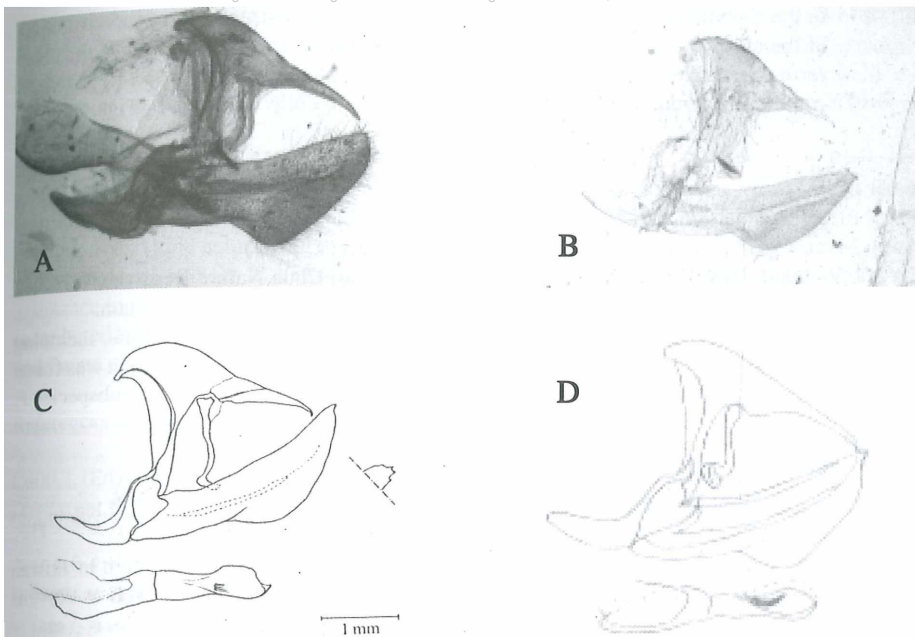


Fig. 8. Male genitalia. A: *E. strephonida* **spec. nov.**, holotype (C. Vietnam); B: *E. strephon strephon* GROSE-SMITH Type HT, Omeishan; BM (NH) Rhopalocera Slide No 29853, T. Yokochi; C: *E. strephon strephon*—(after MORISHITA, 1991); D: *E. strephon zhaxidunzhiu* HUANG, 1998, S.E. Tibet.

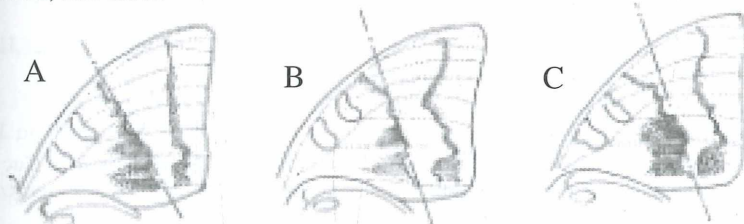


Fig. 9 A-C: Forewing patterns, (A) *E. strephonida* **spec. nov.**; (B) *E. strephon zhaxidunzhiu* HUANG, 1998; (C) *E. strephon haradai* YOKOCHI, 1996.

2. The round spot at base of space 3 has silvery tinge that is unknown in *E. strephon* GROSE-SMITH, 1893.
3. Underside of both wings has bright dark yellow ground colour with greenish tinge while in *E. strephon strephon* GROSE-SMITH, 1893 and other subspecies underside ground colour is brownish with greyish or greenish tinge.

4. In the ♂ genitalia the clasp is more reinforced than in *E. strephon* GROSE-SMITH; apex of the clasp is rounded without serration; in lateral view ventral margin of the clasp forms a nearly right angle. In *E. strephon strephon* GROSE-SMITH, 1893 (type), in *E. strephon zhaxidunzhiu* HUANG the ventral margin of clasp is rounded. (Figs. 8 B-D)

Lycaenidae

Famegana alsulus (HERRICH-SCHÄFFER, 1869)

1 ♂, C. Vietnam, Ninh Thuan Province, Rung Kho Han Nui Chua Nature Reserve (Nui Chua Nature Reserve), Ninh Hai District, 13.X.2003, ALM leg. First record from Vietnam.

The genus *Famegana* ELIOT, 1973 includes a single species distributed in S. China, including Hong Kong and Hainan, S. Japan, Luzon, N. Guinea, N. and E. Australia. Recently it was found in Laos (OSADA *et al.*, 1999). It is possible that Vietnamese population belongs to subspecies *F. a. eggletoni* (CORBET, 1941). Larvae develop on some representatives of Fabaceae.

Euaspa milionia (HEWITSON, [1869])

1 ♂, C. Vietnam, Kon Tum Province, Ngoc Linh Nature Reserve, 12.IV.2004, ALM leg. First record from Vietnam.

The nominate subspecies distributed from N.W. India to Nepal. Isolated population in Taiwan represents subspecies *formosana* Nomura. Specimen from central Annam as well as *Ravena nivea* demonstrates the past links between insulars and continental butterfly faunas.

Cowania achaja (FRUHSTORFER, [1912])

2 ♂♂, C. Vietnam, Ninh Thuan Province, Rung Kho Han Nui Chua Nature Reserve (Nui Chua Nature Reserve), Ninh Hai District, 13.X.2003, ALM leg. First record from Vietnam.

This uncommon species a long time was mentioned only from Thailand and recently was found in southern and central Laos.

Tajuria ister (HEWITSON, [1865])

1 ♂, N. Vietnam, Ninh Binh province, Cuc Phuong National Park, 2004, LC.

First record from Vietnam.

Distributing very widely; this species was recently found in N. Laos very close to Cuc Phuong area. Indochinese population belongs to the nominate subspecies.

Charana mandarinus (HEWITSON, [1863])

1 ♂, N. Vietnam, Ninh Binh province, Cuc Phuong National Park, 2004, LC.

First record from Vietnam.

Virachola isocrates (FABRICIUS, 1793)

2 ♂♂, C. Vietnam, Ninh Thuan Province, Rung Kho Han Nui Chua Nature Reserve (Nui Chua Nature Reserve), Ninh Hai District, 13.X.2003, ALM leg.

First record from Vietnam

This Indo-Burmese species distributed from Sri Lanka to Indo-China.

Acknowledgements: I am greatly indebted to BUI XUAN PHUONG, BUI HUU MANH and RUSTAM BERDIEV due to whose courtesy this valuable material was placed at my disposal. The author wishes to express his gratitude to all persons and organisations who facilitated his field and taxonomical studies and first of all to the authorities and officials of the Vietnam Russia Tropical Research Centre.

Special thanks are due to Messrs. R.I. VANE-WRIGHT, P. R. ACKERY, C. R. SMITH, W.J. REYNOLDS and B. D'ABRERA, Mrs. K. GOODGER (BMNH), Prof. J. PIERRE and Mme NGUYEN THI HONG (Museum National d'Histoire Naturelle, Paris) for the permission and support to study the collections and kind help during the work in the museums; to Dr. Y. UEMURA (Toyosato Museum of Entomology) and Dr. T. YOKOCHI for providing valuable advices; to Dr. A. DEVIATKIN for assistance in preparation of this publication. Thanks are also due to several organisations which contributed to this publication: BirdLife International in Indochina; WWF Indochina Programme and Fauna and Flora International Indochina Programme.

References

- CHOU, I. (Ed) (1994): Monographia Rhopalocerurum Sinensium. - Henan Science and Technology.
- DEVIATKIN, A. L. & A. L. MONASTYRSKII (1999): Hesperidae of Vietnam, 5. An annotated list of the Hesperidae of North and Central Vietnam (Lepidoptera: Hesperidae). *Atalanta* **29** (1/4): 151-184, Würzburg.
- DEVIATKIN, A. L. & A. L. MONASTYRSKII (2002): Hesperidae of Vietnam, 12. A further contribution to the Hesperidae fauna of North and Central Vietnam. - *Atalanta* **33** (1/2): 137-155, Würzburg.
- ELIOT, J. (1969): An Analysis of the Eurasian and Australian Neptini (Lepidoptera: Nymphalidae). - *Bull. Brit. Mus. Nat. Hist. (Ent.) Suppl.* **15**, 155pp., 101figs., 3 pls., London.
- EVANS, W.H. (1932): The identification of Indian Butterflies, 2. Edn., 10+454 pp., 32 pls. Madras.
- HUANG, H. (1998): Research on the butterflies of the Namjagbarwa region, S.E. Tibet. - *Neue Ent. Nachr.* **41**: 207-263, Marktlee.
- HUANG, H. (2002): Some new nymphalids from the valleys of Nujiang and Dulongjiang, China (Lepidoptera, Nymphalidae). - *Atalanta* **33** (3/4): 339-360, col. pls XIII-XVIII, Würzburg.
- LESSE, H. DE (1956 [1957]): Revision du genre *Lethe* (S.L.) (Lep. Nymphalidae Satyrinae). *Ann. Soc. Ent. Fr.* **125**: 75-95, Paris.
- MONASTYRSKII, A.L. & A. L. DEVIATKIN (2000): New taxa and new records of butterflies from Vietnam. - *Atalanta* **31** (3/4): 471-492, Würzburg.
- MONASTYRSKII, A.L. & A. L. DEVIATKIN (2003): New taxa and new records of butterflies from Vietnam (Lepidoptera, Rhopalocera) (II). *Atalanta* **34** (1/2): 75-109, col. pls. V-XI, Würzburg.
- MORISHITA, K. (1992): A guide to species of Euthaliini in the Orient (IX) Sino-Himalayan groups (5). *Yadoriga* **151**: 2-10, Tokyo.
- MORISHITA, K. (1991): A guide to species of Euthaliini in the Orient (VII) Sino-Himalayan groups (3). - *Yadoriga* **144**: 2-6, Tokyo.
- MORISHITA, K. (1989): A guide to species of Euthaliini in the Orient (V) Sino-Himalayan groups (1). *Yadoriga* **138**: 2-9, Tokyo.

- SMILES, R.L. (1973): Revisional Notes on the Genera *Cyllogenes* BUTLER, *Gnophodes* DOUBLEDAY, and *Parantirrhoea* WOOD-MASON (Lepidoptera: Satyridae). - The Entomologist **106**: 172-182, London.
- SUGIYAMA, H. (1999): New Butterflies from Western China (VI). - Pallarge **7**: 1-14, Gifun, Japan.
- YOKOCHI, T. (1996): A new subspecies of *Euthalia* (*Limbusa*) *strephon* (GROSE-SMITH) from Fang North Thailand. - Futao **22**: 14-15, Tattori, Japan.

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Colour plate 6:

- Fig. 1, 2: *Cyllogenes milleri* spec. nov., holotype ♀, upper- and underside, C. Vietnam, Lam Dong Province, Bao Lam District, 30.IV.2003, BUI HUU MANH leg.
- Fig. 3, 4: *Cyllogenes janetae orientalis* subspec. nov., holotype ♀, upper- and underside, N. Vietnam, Tuyen Quang Province, Na Hang nature Reserve, Ban Bung sector, 10.VI.2003, BUI XUAN PHUONG leg.
- Fig. 5, 6: *Callarge occidentalis fansipana* subspec. nov., holotype ♂, upper- and underside, N. Vietnam, Lao Cai Province, Sa Pa, Fan Si Pan, 19.IV.2004, R. BERDIEV leg.
- Fig. 7, 8: *Lethe berdievi* spec. nov., holotype ♂, upper- and underside, N. Vietnam, Lao Cai Province, Van Ban district, Nam Xay commune, 800 m a.s.l., stream Xuong Peng, 26.IV.2004, R. BERDIEV leg.
- Fig. 9, 10: *Lethe berdievi* spec. nov., paratype ♀, upper- and underside, N. Vietnam, Lao Cai Province, Van Ban district, Nam Xay commune, 800 m a.s.l., stream Xuong Peng, 26.IV.2004, R. BERDIEV leg.

Colour plate 7:

- Fig. 1, 2: *Lethe melisana* spec. nov., holotype ♂, upper- and underside, C. Vietnam, Kon Tum Province, Ngoc Linh Nature Reserve, 19.IV.2004, evergreen forest at 700-800 m, BUI XUAN PHUONG leg.
- Fig. 3, 4: *Lethe melisana* spec. nov., paratype ♀, upper- and underside, C. Vietnam, Kon Tum Province, Ngoc Linh Nature Reserve, 19.IV.2004, evergreen forest at 700-800 m, BUI XUAN PHUONG leg.
- Fig. 5, 6: *Neptis transita* spec. nov., holotype ♂, upper- and underside, C. Vietnam, Lam Dong Province, Bi Doup Nui Ba Nature Reserve, 06.IV.2002; 1500 m a.s.l., primary evergreen forest A. L. MONASTYRSKII leg.
- Fig. 7, 8: *Phaedyma armariola* spec. nov., holotype ♂, upper- and underside, C. Vietnam, Khanh Hoa Province, Hon Ba Nature Reserve, 18.IV.2003, evergreen forest, near stream at 1200 m a.s.l., A. L. MONASTYRSKII leg.
- Fig. 9, 10: *Euthalia eriphylae alboapicala* subspec. nov., holotype ♀, upperside, S. Vietnam, Binh Phuoc Province, Bu Dang District, Nghia Trung forest, 27.XI.2003, lowland forest, A. L. MONASTYRSKII leg.

Colour plate 8:

- Fig. 1, 2: *Euthalia eriphylae alboapicala* subspec. nov., paratype ♂, upper- and underside, S. Vietnam, Dong Nai province, Dinh Quan District, La Nga forest, 18.V.2003, lowland forest, A. L. MONASTYRSKII leg.
- Fig. 3, 4: *Euthalia hoa* spec. nov., holotype ♂, upperside, C. Vietnam, Khanh Hoa province, Hon Ba Nature Reserve, evergreen forest, 1200 m a.s.l., 17.IV.2003, A. L. MONASTYRSKII leg.
- Fig. 5, 6: *Euthalia strephonida* spec. nov., holotype ♂, upper- and underside, C. Vietnam, Khanh Hoa Province, Hon Ba Nature Reserve, 18.IV.2002, 1200m a.s.l., primary evergreen forest, A. L. MONASTYRSKII leg.

Farbtafel 6/ Colour plate 6

ALEXANDER L. MONASTYRSKII: New taxa and new records of butterflies from Vietnam (3)
(Lepidoptera, Rhopalocera). - Atalanta (Juli 2005) 36 (1/2): 141-160, Würzburg.

Fig. 1, 2: *Cyllogenes milleri* spec. nov., holotype ♀, upper- and underside, C. Vietnam, Lam Dong Province, Bao Lam District, 30.IV.2003, BUI HUU MANH leg.

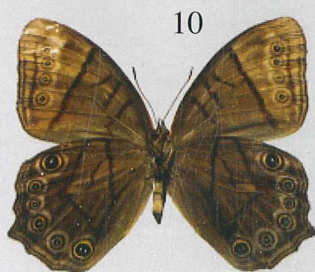
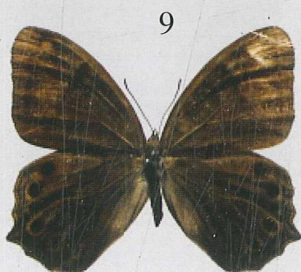
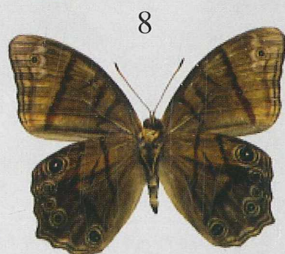
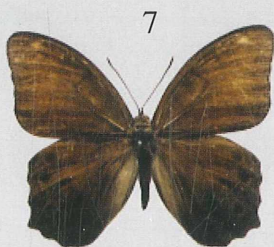
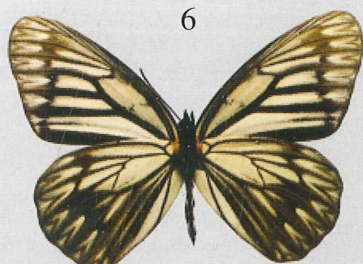
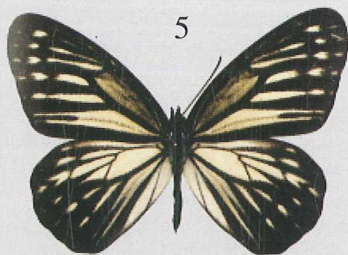
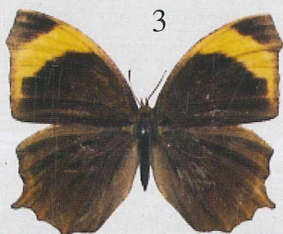
Fig. 3, 4: *Cyllogenes janetae orientalis* subspec. nov., holotype ♀, upper- and underside, N. Vietnam, Tuyen Quang Province, Na Hang nature Reserve, Ban Bung sector, 10.VI.2003, BUI XUAN PHUONG leg.

Fig. 5, 6: *Callarge occidentalis fansipana* subspec. nov., holotype ♂, upper- and underside, N. Vietnam, Lao Cai Province, Sa Pa, Fan Si Pan, 19.IV.2004, R. BERDIEV leg.

Fig. 7, 8: *Lethe berdievi* spec. nov., holotype ♂, upper- and underside, N. Vietnam, Lao Cai Province, Van Ban district, Nam Xay commune, 800 m a.s.l., stream Xuong Peng, 26.IV.2004, R. BERDIEV leg.

Fig. 9, 10: *Lethe berdievi* spec. nov., paratype ♀, upper- and underside, N. Vietnam, Lao Cai Province, Van Ban district, Nam Xay commune, 800 m a.s.l., stream Xuong Peng, 26.IV.2004, R. BERDIEV leg.

Farbtafel 6/ Colour plate 6



Farbtafel 7/ Colour plate 7

ALEXANDER L. MONASTYRSKII: New taxa and new records of butterflies from Vietnam (3)
(Lepidoptera, Rhopalocera). - Atalanta (Juli 2005) 36 (1/2): 141-160, Würzburg.

Colour plate 7:

Fig. 1, 2: *Lethe melisana* spec. nov., holotype ♂, upper- and underside, C. Vietnam, Kon Tum Province, Ngoc Linh Nature Reserve, 19.IV.2004, evergreen forest at 700-800 m, BUI XUAN PUONG leg.

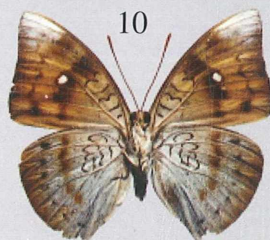
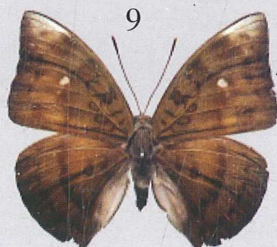
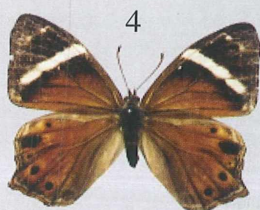
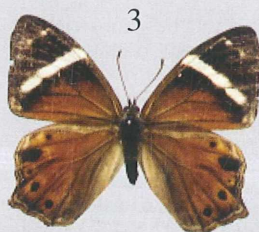
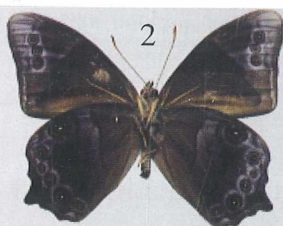
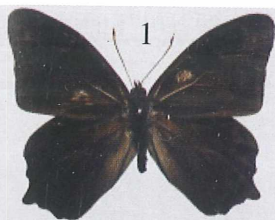
Fig. 3, 4: *Lethe melisana* spec. nov., paratype ♀, upper- and underside, C. Vietnam, Kon Tum Province, Ngoc Linh Nature Reserve, 19.IV.2004, evergreen forest at 700-800 m, BUI XUAN PUONG leg.

Fig. 5, 6: *Neptis transita* spec. nov., holotype ♂, upper- and underside, C. Vietnam, Lam Dong Province, Bi Doup Nui Ba Nature Reserve, 06.IV.2002; 1500 m a.s.l., primary evergreen forest A. L. MONASTYRSKII leg.

Fig. 7, 8: *Phaedyma armariola* spec. nov., holotype ♂, upper- and underside, C. Vietnam, Khanh Hoa Province, Hon Ba Nature Reserve, 18.IV.2003, evergreen forest, near stream at 1200 m a.s.l., A. L. MONASTYRSKII leg.

Fig. 9, 10: *Euthalia eriphylae alboapicala* subspec. nov., holotype ♀, upperside, S. Vietnam, Binh Phuoc Province, Bu Dang District, Nghia Trung forest, 27.XI.2003, lowland forest, A. L. MONASTYRSKII leg.

Farbtafel 7/ Colour plate 7



Farbtafel 8/ Colour plate 8

ALEXANDER L. MONASTYRSKII: New taxa and new records of butterflies from Vietnam (3)
(Lepidoptera, Rhopalocera). - Atalanta (Juli 2005) 36 (1/2): 141-160, Würzburg.

Fig. 1, 2: *Euthalia eriphylae alboapicala* subsp. nov., paratype ♂, upper- and underside, S. Vietnam, Dong Nai province, Dinh Quan District, La Nga forest, 18.V.2003, lowland forest, A. L. MONASTYRSKII leg.

Fig. 3, 4: *Euthalia hoa* spec. nov., holotype ♂, upperside, C. Vietnam, Khanh Hoa province, Hon Ba Nature Reserve, evergreen forest, 1200 m a.s.l., 17.IV.2003, A. L. MONASTYRSKII leg.

Fig. 5, 6: *Euthalia strephonida* spec. nov., holotype ♂, upper- and underside, C. Vietnam, Khanh Hoa Province, Hon Ba Nature Reserve, 18.IV.2002, 1200m a.s.l., primary evergreen forest, A. L. MONASTYRSKII leg., upperside.

KARISCH, T.: Eine neue Art aus der *Cyana amatura* (WALKER, 1863)-Artengruppe (Lepidoptera: Arctiidae, Lithosiinae). - Atalanta (Juli 2005) 36(1/2): 269-171, Würzburg.

Abb. 7: ♂ von *Cyana klausruedigerbecki* spec. nov., Paratypus. Maßstabsstrich 10 mm.

Abb. 8: ♀ von *Cyana klausruedigerbecki* spec. nov. oder einer dieser sehr nahestehenden Art (siehe Text); Côte d'Ivoire, Gouédié bei Man, 20.VIII.1997, leg. et coll.'TH. SÜSSMUTH. Maßstabsstrich 10 mm.

Farbtafel 8/ Colour plate 8

